

**Submission
No 11**

**ADMINISTRATION OF THE 2023 NSW STATE ELECTION AND OTHER
MATTERS**

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Submission to the JSCEM inquiry into the 2023 NSW State Election

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I am a cryptographer with a particular interest in election security. Over the last decade, my colleagues and I have found numerous security and privacy problems in the iVote system, which we have detailed in previous submissions to this committee.

This submission is short because Internet voting was not used in the 2023 NSW State Election. For the first time since 2011, the NSW State Election was conducted without a significant technical failure or security problem. It is worth taking some time to consider how important and valuable this is, and that it is not to be taken for granted.

1 Should iVote continue?

This committee was repeatedly and explicitly warned, by me and various other experts, that continuing dependence on iVote would eventually precipitate a catastrophic electoral failure. That failure occurred during the 2021 NSW local government elections. Thousands of voters were disenfranchised, leaving dozens of elected positions in doubt, and eventually leading the NSW Supreme Court to void the results in three local government areas.

It is disappointing that legislative reform to prevent a recurrence of such a failure does not seem to be on the agenda. The NSW Parliament has the power to discontinue Internet voting, but apparently has no appetite to do so despite a clear indication that it is not a reliable way of conducting an election. Indeed, the NSW Electoral Commission is apparently soliciting expressions of interest for a fourth version of iVote.¹ You do not need an

¹<https://www.tenders.nsw.gov.au/?event=public.rft.showClosed&RFTUID=D7018DD5-9815-4027-C56D9F95280073B5>

expert in the field to predict the result.

It is important to remember that obvious failures are not the most serious concern. Undetectable electoral fraud is the real risk: an iVote-dependent election may seem to complete successfully, but an undetected software error or security problem may cause the results to diverge from the true wishes of the voters. I see no indication, from either the NSW Parliament or the NSW Electoral Commission, of any improved requirements for integrity, security or transparency that attempt to address this risk.

The NSW Electoral Commission has proposed to solve the problem of iVote's unreliability by excluding its failures from the protections of the Court of Disputed Returns. The final report of their *Technology assisted voting review*² includes the following recommendation:

304. To accommodate the characteristics of different election types, a future savings provision regime in NSW could apply the following principles:

- a) For all types of elections, it is appropriate and proportionate, given the small-scale of TAV, for an election not to be invalid on the basis only that TAV was not available.
- b) For multi member proportional representation elections (such as the Legislative Council and local government councillor elections), it also may be appropriate to extend such protection to where there have been performance issues after votes have been cast. Such consideration is warranted because the scale of the risks and costs involved in re-running multi-vacancy elections, and the consequent detriment to the public interest.
- c) For other contests (such as Legislative Assembly electorates, local government mayoral elections and councillor by-elections), a savings provision may be appropriate even if votes cast by TAV cannot be verified or counted but only if the Electoral Commissioner determines prior to the declaration of results that the number of votes cast by TAV in that election (but which could not be included in the count) was greater than the smallest exclusion point.

I encourage the committee to consider that the responsible authority's response to a technological failure is not to question the use of the technology,

²<https://elections.nsw.gov.au/getmedia/32e75622-e0d2-49df-9ffa-751fef5fedda/tav-review-final-report.pdf>

but to propose instead that the voters who use it be excluded from one of the most basic protections of a democracy: the right to go to court and argue that they were unfairly disenfranchised. This would also affect candidates who tried to argue that they had been unfairly denied an electoral win because of an iVote technical failure. The NSWEC suggests it is appropriate to extend this exclusion even to votes that are dropped as a result of a software failure after they have been cast, and even if all the votes cast electronically cannot be verified or counted.

2 Alternatives

It is simply not true that integrity needs to be sacrificed in order to achieve cost savings or access for voters with disabilities. Many democracies provide computerised assistance in a polling place for voters who cannot fill in their own paper ballot. If connected to a printer that allows the voter to verify that their vote is cast as they intended, this solution could provide a significant improvement in access without undermining the secret ballot or the integrity and transparency of the process.

There are numerous other opportunities for reform, allowing NSW to benefit from the improved speed and convenience of computers without precipitating another electoral failure by unwisely depending upon them. One way of improving transparency and integrity would be to adopt a process of auditing the digitization of ballots, as the Australian Electoral Commission is now required to do for Senate votes.³

I would, as always, be happy to discuss any of these issues with the committee.

³See the Commonwealth Electoral Act, 273AC “Ballot paper sampling assurance throughout computerised scrutiny of votes in Senate election”